

## SEQUENCE LISTING

## (1) GENERAL INFORMATION:

- Sub  
A1
- (i) APPLICANTS: The UAB Research Foundation
- (ii) TITLE OF INVENTION: POLYMORPHISM IN Fas PROMOTER and Fas LIGAND PROMOTERS
- (iii) NUMBER OF SEQUENCES: 33
- (iv) CORRESPONDENCE ADDRESS:
- (A) ADDRESSEE: Ellen S. Cogen  
Gifford, Krass, Groh, Sprinkle,  
Anderson & Citkowski, P.C.
- (B) STREET: 280 N. Old Woodward Ave., Suite 400
- (C) CITY: Birmingham
- (D) STATE: Michigan
- (E) COUNTRY: U.S.
- (F) ZIP: 48009
- (v) COMPUTER READABLE FORM:
- (A) MEDIUM TYPE: Floppy disk
- (B) COMPUTER: IBM
- (C) OPERATING SYSTEM: Windows 98
- (D) SOFTWARE: Microsoft Word 2000
- (vi) CURRENT APPLICATION DATA:
- (A) APPLICATION NUMBER:
- (B) FILING DATE:
- (C) CLASSIFICATION:
- (viii) ATTORNEY/AGENT INFORMATION:
- (A) NAME: Ellen S. Cogen
- (B) REGISTRATION NUMBER: 38,109
- (C) REFERENCE/DOCKET NUMBER: UAB-14452/22
- (ix) TELECOMMUNICATION INFORMATION:
- (A) TELEPHONE: 248-647-6000
- (B) TELEFAX: 248-647-5210

## (2) INFORMATION FOR SEQ ID NO. 1:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18
- (B) TYPE: Nucleic acid

FOIEU 10000000

- (C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO. 1:  
AAA ACA TTG CGA AAT ACA 18

(3) INFORMATION FOR SEQ ID NO. 2:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 18  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 2:

TGT ATT TCG CAA TGT TTT 18

(4) INFORMATION FOR SEQ ID NO. 3:

(i) **SEQUENCE CHARACTERISTICS:**

(A) LENGTH: 18  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear

## (ii) MOLECULE TYPE:

(A)	Description:	Other nucleic acid

(iii) HYPOTHETICAL: No

No

(iv) ANTISENSE: No

No

(vi) ORIGINAL SOURCE:

(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 3:

ACC TGT AAA TTA TGG TGA 18

(5) INFORMATION FOR SEQ ID NO. 4:

(i) **SEQUENCE CHARACTERISTICS:**

(A) LENGTH: 18  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear

## (ii) MOLECULE TYPE:

(A) Description: Other nucleic acid

(iii) HYPOTHETICAL: No

No

Variable	Mean	SD	Min	Max
Age	34.5	12.5	18	65
Gender	0.5	0.5	0	1
Marital status	0.6	0.5	0	1
Education	12.5	2.5	9	16
Income	1500	500	500	3000
Health status	0.7	0.5	0	1
Smoking status	0.3	0.5	0	1
Alcohol consumption	0.2	0.4	0	1
Exercise frequency	0.4	0.5	0	1
Stress level	0.6	0.5	0	1
Sleep quality	0.5	0.5	0	1
Work satisfaction	0.4	0.5	0	1
Life satisfaction	0.5	0.5	0	1
Depression score	10.5	5.5	0	30
Anxiety score	8.5	4.5	0	25
Quality of life score	75.5	15.5	50	100

(iv) ANTISENSE: No

(vi) ORIGINAL SOURCE:

(B) STRAIN:

(C) INDIVIDUAL ISOLATE:

(D) DEVELOPMENTAL STAGE:

(F) TISSUE TYPE:

(G) CELL TYPE:

(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 4:

TCA CCA TAA TTT ACA GGT 18

(6) INFORMATION FOR SEQ ID NO. 5:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 18

(B) TYPE: Nucleic acid

(C) STRANDEDNESS: Double

(D) TOPOLOGY: Linear

(ii) MOLECULE TYPE:

(A) Description: Other nucleic acid

(iii) HYPOTHETICAL: No

(iv) ANTISENSE: No

(vi) ORIGINAL SOURCE:

(B) STRAIN:

(C) INDIVIDUAL ISOLATE:

(D) DEVELOPMENTAL STAGE:

(F) TISSUE TYPE:

(G) CELL TYPE:

(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 5:

GTG GGT GTT TCT TTG AGA 18

(7) INFORMATION FOR SEQ ID NO. 6:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 18  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 6:

TCT CAA AGA AAC ACC CAC 18

(8) INFORMATION FOR SEQ ID NO. 7:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 25  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:

- (G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 7:

TTA TGC CTA TAA TCC CAG CTA CTC A 25

(9) INFORMATION FOR SEQ ID NO. 8:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 22  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear

(ii) MOLECULE TYPE:

- (A) Description: Other nucleic acid

(iii) HYPOTHETICAL: No

(iv) ANTISENSE: Yes

(vi) ORIGINAL SOURCE:

- (B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 8:

CTG GGG ATA TGG GTA ATT GAA G 22

(10) INFORMATION FOR SEQ ID NO. 9:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 39  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear

(ii) MOLECULE TYPE:

- (A) Description: Other nucleic acid

40

## (12) INFORMATION FOR SEQ ID NO. 11:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 32  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO. 11:  
GGC GGA GGT ACC CTA TAA TCC CAG CTA CTC AG 32

## (13) INFORMATION FOR SEQ ID NO. 12:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 31  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:



- (xi) SEQUENCE DESCRIPTION: SEQ ID NO. 12:

GTT CCG AAG CTT GGC AGC TGG TGA GTC AGG C 31

(14) INFORMATION FOR SEQ ID NO. 13:

- (xi) SEQUENCE DESCRIPTION: SEQ ID NO. 13:

AAA TGA AAA CAT TGT GAA ATA CAA AGC AG 29

(15) INFORMATION FOR SEQ ID NO. 14:

- (i) SEQUENCE CHARACTERISTICS:
- |     |               |              |
|-----|---------------|--------------|
| (A) | LENGTH:       | 29           |
| (B) | TYPE:         | Nucleic acid |
| (C) | STRANDEDNESS: | Double       |
| (D) | TOPOLOGY:     | Linear       |

26

## (17) INFORMATION FOR SEQ ID NO. 16:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26
- (B) TYPE: Nucleic acid
- (C) STRANDEDNESS: Double
- (D) TOPOLOGY: Linear

## (ii) MOLECULE TYPE:

- (A) Description: Other nucleic acid

## (iii) HYPOTHETICAL: No

## (iv) ANTISENSE: Yes

## (vi) ORIGINAL SOURCE:

- (B) STRAIN:
- (C) INDIVIDUAL ISOLATE:
- (D) DEVELOPMENTAL STAGE:
- (F) TISSUE TYPE:
- (G) CELL TYPE:
- (H) CELL LINE:

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO. 16:

GCC GAT CAC CAT AAC TTA CAG GTT AA 26

## (18) INFORMATION FOR SEQ ID NO. 17:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26
- (B) TYPE: Nucleic acid
- (C) STRANDEDNESS: Double
- (D) TOPOLOGY: Linear

## (ii) MOLECULE TYPE:

- (A) Description: Other nucleic acid

## (iii) HYPOTHETICAL: No

## (iv) ANTISENSE: No

## (vi) ORIGINAL SOURCE:

- (B) STRAIN:
- (C) INDIVIDUAL ISOLATE:
- (D) DEVELOPMENTAL STAGE:
- (F) TISSUE TYPE:
- (G) CELL TYPE:
- (H) CELL LINE:

050910 105/0550

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 17:

ATA ATG TAT AAA ATA GCA TGC AAT TA 26

(19) INFORMATION FOR SEQ ID NO. 18:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 26
  - (B) TYPE: Nucleic acid
  - (C) STRANDEDNESS: Double
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:
- (A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: Yes
- (vi) ORIGINAL SOURCE:
- (B) STRAIN:
  - (C) INDIVIDUAL ISOLATE:
  - (D) DEVELOPMENTAL STAGE:
  - (F) TISSUE TYPE:
  - (G) CELL TYPE:
  - (H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 18:

TAA TTG CAT GCT ATT TTA TAC ATT AT 26

(20) INFORMATION FOR SEQ ID NO. 19:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 30
  - (B) TYPE: Nucleic acid
  - (C) STRANDEDNESS: Double
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:
- (A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No

- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

AGT GAG TGG GTG TTT GTT TGA GAA GCA GAA 30

(i) SEQUENCE CHARACTERISTICS:

(A)	LENGTH:	30
(B)	TYPE:	Nucleic acid
(C)	STRANDEDNESS:	Double
(D)	TOPOLOGY:	Linear

(ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid

(iii) HYPOTHETICAL: No

(iv) ANTISENSE: Yes

(vi) ORIGINAL SOURCE:

(B) STRAIN:

(C) INDIVIDUAL ISOLATE:

(D) DEVELOPMENTAL STAGE:

(F) TISSUE TYPE:

(G) CELL TYPE:

(H) CELL LINE:

TTC TGC TTC TCA AAC AAA CAC CCA CTC ACT 30

(22) INFORMATION FOR SEQ ID NO. 21:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 18  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 21:

GCG AAA TCC AAA CCA GCT 18

(23) INFORMATION FOR SEQ ID NO. 22:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 18  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: Yes
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:

(G) CELL TYPE:

(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 22:

AGC TGG TTT GGA TTT CGC 18

(24) INFORMATION FOR SEQ ID NO. 23:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 78  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear

(ii) MOLECULE TYPE:

(A) Description: Other nucleic acid

(iii) HYPOTHETICAL: No

(iv) ANTISENSE: No

(vi) ORIGINAL SOURCE:

(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 23:

GGC GGA GGT ACC GTG GGT GTT TCT TTG AGA  
GTG GGT GTT TCT TTG AGA GTG GGT GTT TCT  
TTG AGA GGT ACC TAA TGA

78

(25) INFORMATION FOR SEQ ID NO. 24:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 78  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear



- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: Yes
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 24:

TCA TTA GGT ACC TCT CAA AGA AAC ACC CAC  
TCT CAA AGA AAC ACC CAC TCT CAA AGA AAC  
ACC CAC GGT ACC TAA TGA

78

(26) INFORMATION FOR SEQ ID NO. 25:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 78  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:
- (xi) SEQUENCE DESCRIPTION: SEQ ID NO. 25:

GGC GGA GGT ACC GTG GGT GTT TGT TTG AGA  
GTG GGT GTT TGT TTG AGA GTG GGT GTT TGT  
TTG AGA GGT ACC TAA TGA

78

(27) INFORMATION FOR SEQ ID NO. 26:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 78  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: Yes
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 26:

TCA TTA GGT ACC TCT CAA ACA AAC ACC CAC  
TCT CAA ACA AAC ACC CAC TCT CAA ACA AAC  
ACC CAC GGT ACC TAA TGA

78

(28) INFORMATION FOR SEQ ID NO. 27:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 20  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid

19

- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:
- (B) STRAIN:
  - (C) INDIVIDUAL ISOLATE:
  - (D) DEVELOPMENTAL STAGE:
  - (F) TISSUE TYPE:
  - (G) CELL TYPE:
  - (H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 27:

TGC AGA TTG CGC AAT CTG CA

20

(29) INFORMATION FOR SEQ ID NO. 28:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18
  - (B) TYPE: Nucleic acid
  - (C) STRANDEDNESS: Double
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:
- (A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:
- (B) STRAIN:
  - (C) INDIVIDUAL ISOLATE:
  - (D) DEVELOPMENTAL STAGE:
  - (F) TISSUE TYPE:
  - (G) CELL TYPE:
  - (H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 28:

GTG GGT GTT TGT TTG AGA

18

09207501.052301

## (30) INFORMATION FOR SEQ ID NO. 29:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18
  - (B) TYPE: Nucleic acid
  - (C) STRANDEDNESS: Double
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:
- (A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:
- (B) STRAIN:
  - (C) INDIVIDUAL ISOLATE:
  - (D) DEVELOPMENTAL STAGE:
  - (F) TISSUE TYPE:
  - (G) CELL TYPE:
  - (H) CELL LINE:

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO. 29:

AAA ACA TTG CGA AAT ACA 18

## (31) INFORMATION FOR SEQ ID NO. 30:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18
  - (B) TYPE: Nucleic acid
  - (C) STRANDEDNESS: Double
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:
- (A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:
- (B) STRAIN:
  - (C) INDIVIDUAL ISOLATE:

- (D) DEVELOPMENTAL STAGE:
- (F) TISSUE TYPE:
- (G) CELL TYPE:
- (H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 30:

ACC TGT AAA TTA TGG TGA 18

(32) INFORMATION FOR SEQ ID NO. 31:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 22
  - (B) TYPE: Nucleic acid
  - (C) STRANDEDNESS: Double
  - (D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:
  - (A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:
  - (B) STRAIN:
  - (C) INDIVIDUAL ISOLATE:
  - (D) DEVELOPMENTAL STAGE:
  - (F) TISSUE TYPE:
  - (G) CELL TYPE:
  - (H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 31:

TGT CGA ATG CAA ATC ACT AGA A 22

(33) INFORMATION FOR SEQ ID NO. 32:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 18
  - (B) TYPE: Nucleic acid
  - (C) STRANDEDNESS: Double
  - (D) TOPOLOGY: Linear

- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 32:

GCG AAA TAC AAA GCA GCT 18

(34) INFORMATION FOR SEQ ID NO. 33:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 18  
(B) TYPE: Nucleic acid  
(C) STRANDEDNESS: Double  
(D) TOPOLOGY: Linear
- (ii) MOLECULE TYPE:  
(A) Description: Other nucleic acid
- (iii) HYPOTHETICAL: No
- (iv) ANTISENSE: No
- (vi) ORIGINAL SOURCE:  
(B) STRAIN:  
(C) INDIVIDUAL ISOLATE:  
(D) DEVELOPMENTAL STAGE:  
(F) TISSUE TYPE:  
(G) CELL TYPE:  
(H) CELL LINE:

(xi) SEQUENCE DESCRIPTION: SEQ ID NO. 33:

GCG AAA TCC AAA CCA GCT 18